

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: National Phase of PCT/FR99/03164
Applicants: Didier BEUDON et al.
Title: DEVICE FOR DIFFUSING STERILE
AIR IN A FABRIC SHEATH
Appl. No.: 09/868,315
Filing Date: 08/29/2001
Examiner: Harold JOYCE
Art Unit: 3749

RESPONSE UNDER 37 CFR 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is response to Office Action dated September 14, 2004.

Amendments to the claims begin on page 2 of this document.

Remarks begin on page 4 of this document.

Please amend the application as follows:

1. (Currently amended) A sheath of flexible material for close protection of products placed on a work surface and sensitive to airborne contamination, the protection being provided by diffusing a stream of sterile air, ~~in particular~~ in a direction that is substantially perpendicular to said work surface, said sheath defining a sterile air feed duct and presenting a geometrical singularity, the sheath being characterized in that a sterile air diffusion cone is provided in said feed duct immediately after said singularity in the direction of sterile air flow in said duct, the diffusion cone being oriented in the sterile air flow direction and being centered on the longitudinal axis x of the sheath.

2. (Previously presented) A sheath according to claim 1, characterized in that said diffusion cone is truncated.

3. (Currently amended) A sheath according to claim 1, characterized in that said diffusion cone has an angle at the apex (α) lying in the range 30° to 45° , ~~and preferably equal to about 45° .~~

4. (Previously presented) A sheath according to claim 1, characterized in that said diffusion cone is made of a perforated flexible material, preferably a textile material.

5. ~~[[5/]]~~ (Currently amended) A sheath ~~[[(10)]]~~ according to claim 4, characterized in that said diffusion cone ~~[[(30)]]~~ is made of a synthetic fabric such as a polyester or polypropylene fabric.

6. (Previously presented) A sheath according to claim 1, characterized in that said diffusion cone is made of a perforated rigid material.

7. (Previously presented) A sheath according to claim 4, characterized in that said material constituting the diffusion cone has porosity of about 0.5.

8. (Currently amended) A sheath according to claim 1, characterized in that said diffusion cone is secured to the end of a sleeve positioned inside said sterile air feed duct on the longitudinal axis x of the sheath and presenting a section that is ~~slightly~~ smaller than that

of the sheath.

9. (Previously presented) A sheath according to claim 8, characterized in that said sleeve is made of a material that is less porous than the material of said diffusion cone.

10. (Previously presented) A sheath according to claim 8, characterized in that said sleeve is made of a perforated flexible material such as a textile material such that under the action of the sterile air passing through it takes up an oval shape and comes into contact with the inside face of a wall of the sheath.

11. (Previously presented) A sheath according to claim 8, characterized in that it includes a central branch connection constituted by a sterile air feed duct opening out into said sheath in a direction Y that is substantially perpendicular to the longitudinal axis of the sheath such that at the outlet from said sterile air feed duct the sterile air flows in two opposite directions generally along the longitudinal axis x of said sheath, the sheath being provided internally at the outlet from the branch connection with a diffusing sleeve extending along the longitudinal axis x of the sheath and having a diffusion cone at each end, the cones being oriented in the sterile air flow direction and centered on the longitudinal axis x of the sheath.

[[12/]] 12. (Currently amended) A sheath of flexible material for close protection of products placed on a work surface and sensitive to airborne contamination, the protection being provided by a stream of sterile air, in particular in a direction that is substantially perpendicular to said work surface, said sheath defining a sterile air feed duct and presenting a geometrical singularity, the sheath being characterized in that a sterile air diffusion hemisphere is provided in said feed duct immediately after said singularity in the direction of sterile air flow in said duct, the hemisphere being oriented in the sterile air flow direction and being centered on the longitudinal axis X of the sheath.

13. (New) A sheath according to claim 3, characterized in that said diffusion cone has an angle at the apex (α) lying equal to about 45°.